

(14)

$$-1 \int \frac{-1}{\theta^2} \underline{\sec(\theta) + \tan(\theta)} d\theta$$

$$u = \frac{1}{\theta}$$

$$du = -\frac{1}{\theta^2} d\theta$$

$$- \int \sec u + \tan u du$$

$$\sec u + C$$

$$- \sec(\frac{1}{\theta}) + C$$

$$\int e^x \sec(e^x) dx$$

$$\int \sec(u) du \cdot \frac{\sec u + \tan u}{\sec u + \tan u}$$

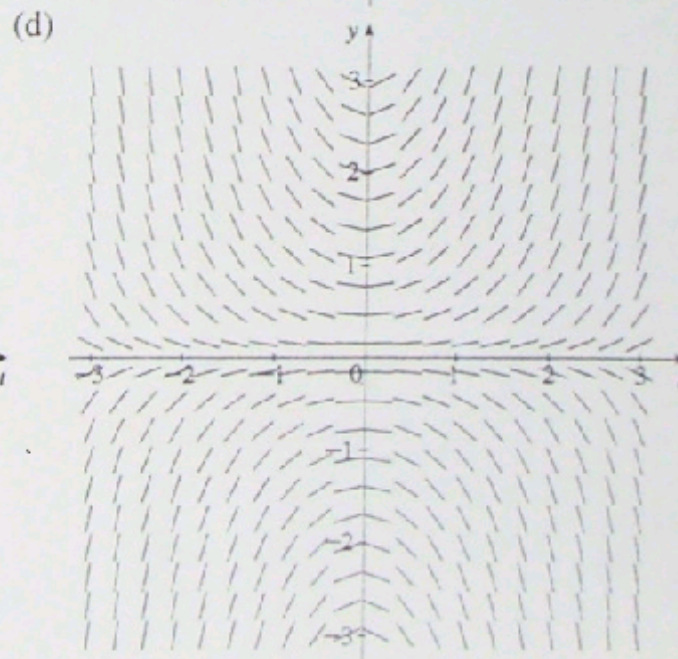
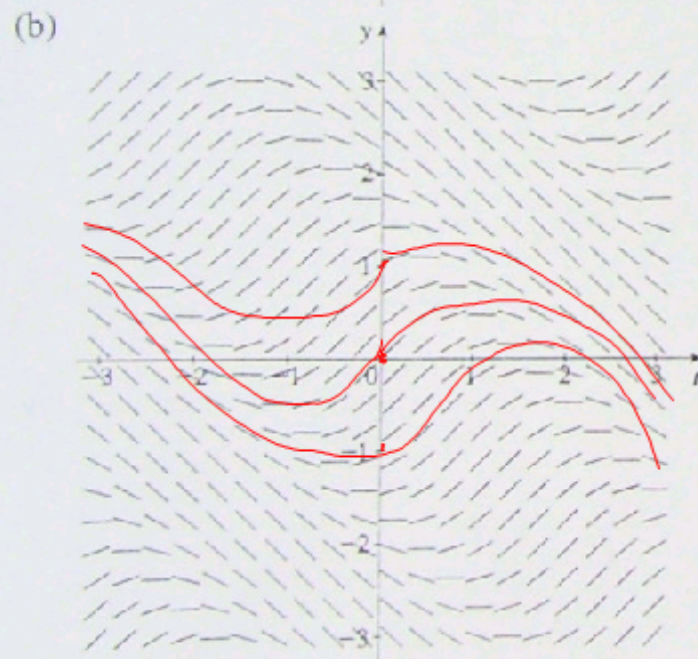
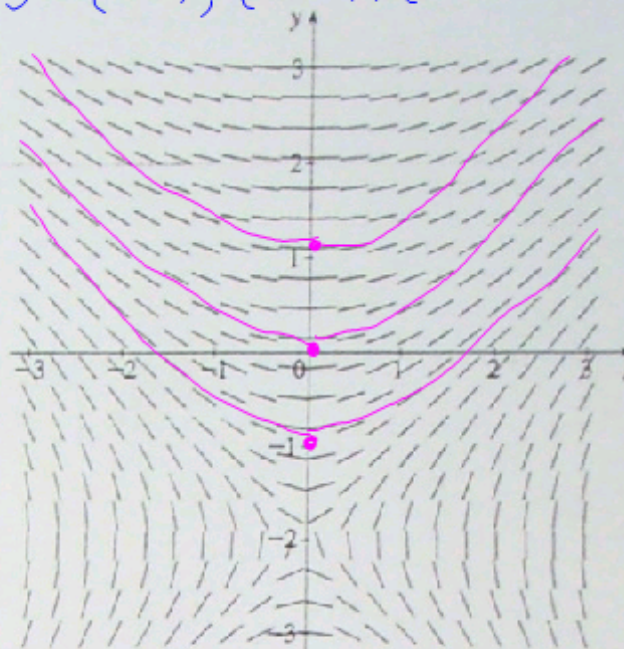
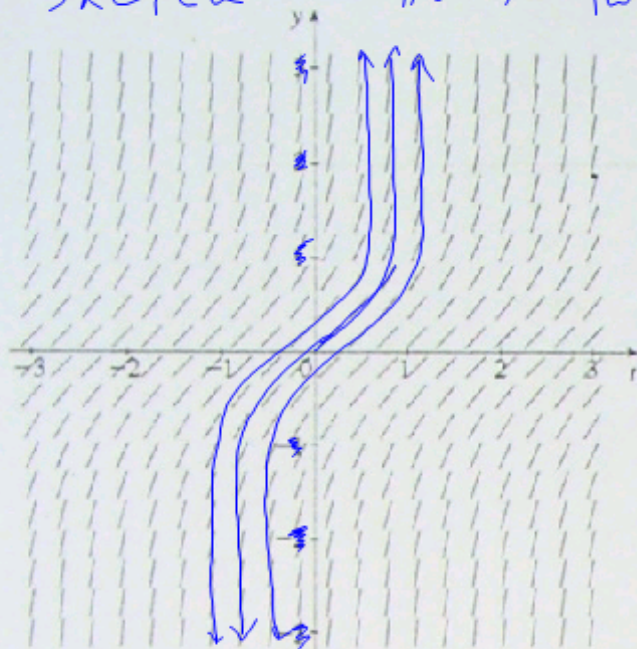
$$du \leftarrow \underline{\sec^2 u + \sec u \tan u}$$

$$u \leftarrow \sec u + \tan u$$

$$\int \frac{du}{u} \ln |\sec(e^x) + \tan(e^x)| + C$$

Match each differential equation with the corresponding direction field.

(a) Sketch solutions through $(0,0)$, $(0,-1)$, $(0,1)$



$$(2) y' = \frac{t}{2+y}$$

$$(c) 2+y$$

$$(B) y' = \cos(t+y)$$

$$(B)$$

$$(Y) y' = 1 + y^2$$

$$(S) y' = ty$$

+	1	2
y	1	2
	$\frac{1}{3}$	$\frac{1}{2}$

NOT

33, 34, 43, 44, 61, 67